



LIEBHERR-AEROSPACE PUTS A NEW MACHINING CENTER INTEGRATING A LIEBHERR ROBOT INTO OPERATION

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Liebherr-Aerospace Toulouse SAS, Liebherr's center of excellence for air management systems, has put into operation at its production site in Campsas (France), a new high capacity five-axis machining center featuring a state-of-the-art rotary pallet loading system. Liebherr-Verzahntechnik GmbH, Liebherr's center of excellence for gear technology and automation systems, supplied the robot. This innovation allows Liebherr-Aerospace to strengthen and modernize its production capacities and opens the door for Liebherr-Verzahntechnik to enter the aerospace market.

The production site of Liebherr-Aerospace Toulouse SAS in Campsas (France) has put into operation a new five-axis high capacity machining center including a robot, which palletizes the machine's tools.

The machining center of the next generation features a six-wheel tool magazine, which contains 363 cutting tools. It is equipped with a 52 kW/430 Nm milling spindle that can rotate at 12,000 rpm. In addition, an IoT connector package enables real-time monitoring of the equipment and remote maintenance. The rotary loading system can lift up to 1.5 tons and stores up to 15 work pieces in its cell. The different modes of control ensure autonomy

and flexibility in production. Waiting times are thus significantly reduced and Liebherr-Aerospace can respond and adapt even better to future market demands. As a man/machine interface, this new system will also facilitate the work of operators by refocusing them on high value-added tasks.

Optimal use of synergies within the Liebherr Group

The rotary loading system was jointly developed by teams of Liebherr-Verzahntechnik GmbH in Kempten (Germany), center of excellence for gear technology and automation systems, and Liebherr-Aerospace Toulouse SAS, center of excellence for air management systems within the Liebherr Group. This close internal cooperation has not only allowed a technological evolution of machining centers, but also laid a sound foundation for future collaborations between the two companies.

« During the pre-investment consultation phases, the integration of Liebherr-Verzahntechnik in our project had several advantages in terms of technology and synergy potential within the Liebherr Group. From the design phase to the entry-into-service, the mutual trust and communication were the main drivers for success. Having Liebherr-Verzahntechnik as an industrial partner allows us to continuously improve the reliability of our production means and to guarantee best performance. Thanks to the flexibility and configuration of this robot, we will be able to meet the new requirements of our customers and ensure future increases in production rate, » explains Mathieu Oulié, Methods Engineer at Liebherr-Aerospace Toulouse SAS.

“For Liebherr-Verzahntechnik, it was important to be able to offer a solution tailored to one of the specific needs of the aerospace market. Based on the RLS 1500, we have integrated a special pallet gripping system enabling to preserve the specific pallets (zero point system) already used by Liebherr-Aerospace Toulouse, while allowing a higher load capacity and a larger size. The whole Liebherr Group benefits from this "win-win" cooperation between our two divisions, improving the productivity of one and allowing access to a new market for the other”, explains Charles Mannocci, Country Manager Automation Systems at Liebherr-Verzahntechnik GmbH.



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